

**RADIOCHEMISTRY TECHNICIAN
JOB PERFORMANCE MEASURE****TASK CODE:** TRC-F02**TASK:** Perform Sample Dissolution**NAME:** _____ **SSN:** _____

REFERENCES:

1. WP 12-RL1011, Elemental Separation - Fission Products
2. WP 12-RL1012, Elemental Separation - Transuranic Products
3. CF-4.08, Sample Preparation Techniques

TERMINAL OBJECTIVE:

Given the necessary equipment, perform sample dissolution per WP 12-RL1011 and WP 12-RL1012.

CONSEQUENCES OF INADEQUATE PERFORMANCE:

Improper analysis results
Hazardous waste spills

HAZARDS (PERSONNEL/EQUIPMENT STATUS):

Exposure to concentrated acids and caustics

PRE-REQUISITE TRAINING/ TASK COMPLETION:

1. CF 4.00 Series
2. TRC-A13, Control Radioactive Sources
2. TRC-F01, Prepare Reagents

TOOLS/EQUIPMENT (MATERIALS REQUIRED):

- | | |
|--------------------|------------------------|
| 1. Deionized water | 4. Suitable containers |
| 2. Chemicals | 5. Ovens |
| 3. Hotplates | 6. Prepared reagents |

Instructions to Trainee: You shall acquire the necessary references and equipment, and complete all required documentation. Knowledge requirements shall be completed with 80% or greater accuracy. Critical step performance shall be completed with 100% accuracy.

Instructions to JPM Evaluator: The trainee is to perform the terminal objective, without assistance, on the job site. Provide clarification of requirements if requested by the trainee. You are encouraged to ask relevant questions to verify trainee understanding. If the trainee fails this JPM, clearly document the reason for failure and forward to the trainee's manager. Successful completion of this JPM shall be recorded on the trainee's qualification card.

KNOWLEDGE REQUIREMENTS:

Reference	Knowledge Requirement	Pass/Fail
1,2	State the PPE required when handling acid or caustic solutions.	
1,2	State the PPE required when handling dry chemicals.	
1,2	Describe the various containers available that are suitable for sample dissolution.	
1,2	Describe the different techniques for performing sample dissolution.	
3	Define the term "wet ashing"	
3	Define the term "dry ashing"	
3	Define the term "volume reduction"	
1,2	State the purpose of performing an acid rinse.	
1,2	Discuss the safety hazards associated with operating an oven or a hot plate.	
1,2	State the purpose of performing sample dissolution.	

PERFORMANCE REQUIREMENTS:

Reference	Performance Requirement	Pass/Fail
1,2	Don the appropriate PPE.#	
1,2	Acquire the required constituents/equipment for sample dissolution.#	
1,2	Select a suitable container based on the sample dissolution technique being utilized.#	
1,2	Perform sample dissolution by dry ashing a sample.#	
1,2	Perform sample dissolution by wet ashing a sample.#	

1,2	Reduce the volume of a sample by using an oven or a hotplate.#	
Reference	Performance Requirement	Pass/Fail
1,2	Place the prepared reagent and the associated constituents in the proper storage locations.#	

indicates a critical step

FINAL EVALUATION:

PASS

FAIL

COMMENTS:

EVALUATOR SIGNATURE:

DATE:_____

TRAINEE SIGNATURE:

DATE:_____

MANAGER SIGNATURE:

DATE:_____